

Appln No. 10/750,501
Amdt date November 13, 2006
Reply to Office action of May 11, 2006

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Please amend claims 1, 13 and 22, and add new claims 28 and 29.

1. (Currently Amended) A method for ablating tissue within a tubular region of or near the heart having an inner circumference, the method comprising:

inserting into the tubular region an ablation assembly at a distal end of a catheter, the catheter comprising an elongated tubular catheter body having proximal and distal ends, an axis, and at least one lumen extending therethrough, and wherein the ablation assembly has a preformed generally circular curve having an outer circumference and being generally transverse to the axis of the catheter body, the ablation assembly further comprising a generally straight distal region extending substantially tangentially from the generally circular curve, wherein the ablation assembly comprising comprises a generally circularly curved flexible tubing having proximal and distal ends, the flexible tubing carrying a tip electrode at its distal end;

contacting the inner circumference of the tubular region with at least a portion of the outer circumference of the generally circular curve so that the tip electrode is in a first position in contact with tissue along the inner circumference of the tubular region;

ablating the tissue along the inner circumference of the tubular region at the first position with the tip electrode;

rotating the catheter so that the tip electrode is in a second position in contact with other tissue along the inner circumference of the tubular region; and

ablating the other tissue at the second position with the tip electrode.

2. (Original) A method according to claim 1, wherein the tubular region is selected from the group consisting of pulmonary veins, the coronary sinus, the superior vena cava, and the inferior vena cava.

Appln No. 10/750,501
Amdt date November 13, 2006
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3. (Original) A method according to claim 1, wherein the tubular region is the pulmonary vein.

4. (Original) A method according to claim 1, wherein the tip electrode has an exposed region that is generally cylindrical.

5. (Original) A method according to claim 1, wherein the tip electrode has an exposed region, at least a portion of which has an outer diameter greater than the outer diameter of the flexible tubing of the ablation assembly.

6. (Original) A method according to claim 1, wherein the generally circular curve has an outer diameter ranging from about 10 mm to about 25 mm.

7. (Original) A method according to claim 1, wherein the generally circular curve has an outer diameter ranging from about 12 mm to about 20 mm.

8. (Original) A method according to claim 1, wherein the generally circular curve is at least about 320°.

9. (Original) A method according to claim 1, wherein the generally circular curve is at least about 360°.

10. (Original) A method according to claim 1, wherein the generally circular curve consists of a single generally circular curve.

11. (Original) A method according to claim 1, wherein the ablation assembly further comprises a support member comprising a material having shape memory extending through at least a portion of the flexible tubing.

12. (Original) A method according to claim 1, further comprising an intermediate section disposed between the catheter body and the ablation assembly, the intermediate section having at least one lumen extending therethrough and being more flexible than the catheter body.

13. (Currently Amended) A method for ablating tissue within a tubular region of or near the heart having an inner circumference, the method comprising:

inserting into the tubular region an ablation assembly at a distal end of a catheter, the catheter comprising an elongated tubular catheter body having proximal and distal ends, an axis, and at least one lumen extending therethrough, and wherein the ablation assembly has a preformed generally circular curve having an outer circumference and being generally transverse to the axis of the catheter body, the ablation assembly further comprising a generally straight distal region extending substantially tangentially from the generally circular curve, wherein the ablation assembly ~~comprising~~ comprises a generally circularly curved flexible tubing having proximal and distal ends, the flexible tubing carrying a tip electrode at its distal end, wherein the tip electrode has an exposed region, at least a portion of which has an outer diameter greater than the outer diameter of the flexible tubing of the ablation assembly;

contacting the inner circumference of the tubular region with at least a portion of the outer circumference of the generally circular curve so that the tip electrode is in a first position in contact with the tissue along the inner circumference of the tubular region; and

ablating the tissue along the inner circumference of the tubular region at the first position with the tip electrode.

14. (Original) A method according to claim 13, wherein the tubular region is selected from the group consisting of pulmonary veins, the coronary sinus, the superior vena cava, and the inferior vena cava.

15. (Original) A method according to claim 13, wherein the tubular region is a pulmonary vein.

16. (Original) A method according to claim 13, wherein the tip electrode has an exposed region that is generally cylindrical.

17. (Original) A method according to claim 13, wherein the generally circular curve has an outer diameter ranging from about 10 mm to about 25 mm.

18. (Original) A method according to claim 13, wherein the generally circular curve has an outer diameter ranging from about 12 mm to about 20mm.

19. (Original) A method according to claim 13, wherein the generally circular curve is at least about 320°.

20. (Original) A method according to claim 13, wherein the generally circular curve is at least 360°.

21. (Original) A method according to claim 13, wherein the generally circular curve consists of a single generally circular curve.

22. (Currently Amended) A method for ablating tissue within a tubular region of or near the heart having an inner circumference, the method comprising:

inserting into the tubular region an ablation assembly at a distal end of a catheter, the catheter comprising an elongated tubular catheter body having proximal and distal ends, an axis, and at least one lumen extending therethrough, and wherein the ablation assembly has a preformed generally circular curve having an outer circumference and being generally transverse to the axis of the catheter body, the ablation assembly further comprising a generally straight distal region extending substantially tangentially from the generally circular curve, wherein the ablation assembly ~~comprising~~ comprises a generally circularly curved flexible tubing having proximal and distal ends, the flexible tubing carrying a tip electrode at its distal end;

contacting the inner circumference of the tubular region with at least a portion of the outer circumference of the generally circular curve so that the tip electrode is in a first position in contact with tissue along the inner circumference of the tubular region;

ablating the tissue along the inner circumference of the tubular region at the first position with the tip electrode;

rotating the catheter so that the tip electrode is in a second position in contact with other tissue along the inner circumference of the tubular region, wherein the ablation assembly is rotated in a direction such that the tip electrode is pulled rather than pushed into the rotation; and

ablating the other tissue at the second position with the tip electrode.

23. (Canceled).

24. (Canceled).

25. (Previously Presented) A method for ablating tissue within a tubular region of or near the heart having an inner circumference, the method comprising:

inserting into the tubular region an ablation assembly at a distal end of a catheter, the catheter comprising an elongated tubular catheter body having proximal and distal ends, an axis, and at least one lumen extending therethrough, and wherein the ablation assembly has a main region having a preformed generally circular curve having an outer circumference and being

generally transverse to the axis of the catheter body, the ablation assembly also having a generally straight distal region extending substantially tangentially to the generally circular curve of the main region, the ablation assembly comprising a generally circularly curved flexible tubing having proximal and distal ends, the flexible tubing carrying a tip electrode at its distal end;

contacting the inner circumference of the tubular region with at least a portion of the outer circumference of the generally circular curve so that the tip electrode is in a first position in contact with tissue along the inner circumference of the tubular region;

ablating the tissue along the inner circumference of the tubular region at the first position with the tip electrode.

26. (Previously Presented) The method according to claim 25, further comprising:
rotating the catheter so that the tip electrode is in a second position in contact with other tissue along the inner circumference of the tubular region; and
ablating the other tissue at the second position with the tip electrode.

27. (Previously Presented) The method according to claim 26, wherein the ablation assembly is rotated in a direction such that the tip electrode is pulled rather than pushed into the rotation.

28. (New) A method for ablating tissue within a tubular region of or near the heart having an inner circumference, the method comprising:

inserting into the tubular region an ablation assembly at a distal end of a catheter, the catheter comprising an elongated tubular catheter body having proximal and distal ends, an axis, and at least one lumen extending therethrough, and wherein the ablation assembly has a preformed generally circular curve having an outer circumference and being generally transverse to the axis of the catheter body, the ablation assembly comprising a generally circularly curved flexible tubing having proximal and distal ends, the flexible tubing carrying a tip electrode at its

Appln No. 10/750,501
Amdt date November 13, 2006
Reply to Office action of May 11, 2006

distal end, the catheter further comprising a safety wire for securing the tip electrode to the ablation assembly, the safety wire having a distal end attached in the tip electrode;

contacting the inner circumference of the tubular region with at least a portion of the outer circumference of the generally circular curve so that the tip electrode is in a first position in contact with tissue along the inner circumference of the tubular region; and

ablating the tissue along the inner circumference of the tubular region at the first position with the tip electrode.

29. (New) The method according to claim 28, further comprising:

rotating the catheter so that the tip electrode is in a second position in contact with other tissue along the inner circumference of the tubular region; and

ablating the other tissue at the second position with the tip electrode.